

Claims

1. Hydraulic controller arrangement for the pressure
5 medium supply of a hydraulic consumer whereby a load
having a high mass may be moved, comprising a pump
which may be controlled in dependence on the load
pressure at the consumer and whereby pressure medium
10 may be conducted via a proportionally adjustable
directional control valve to the consumer and from
the latter via a drain cross-section controlled open
by a drain control edge of the directional control
valve to a tank passage, characterized in that in the
15 pressure medium flow path between the consumer and
the tank passage a drain backup valve is arranged,
whereby it is possible to open a drain branch line
leading to the tank passage substantially prior to
opening of the drain cross-section.
- 20 2. Hydraulic controller arrangement in accordance with
claim 1, wherein shut-off means for blocking the
drain branch line during a predetermined stroke of a
regulator of the directional control valve are
provided in the drain branch line upstream or
25 downstream from the drain backup valve.
3. The control arrangement in accordance with claim 2,
wherein the shut-off means are formed by a control
edge of the regulator.
- 30 4. The control arrangement in accordance with any one of
the preceding claims, wherein the drain backup valve
and the drain branch line are integrated into a
regulator of the directional control valve.
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5. The control arrangement in accordance with claim 3 and 4, wherein the control edge is formed by a control groove into which a radial bore of the drain branch line merges.
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6. The control arrangement in accordance with any one of claims 2 to 5, wherein the drain backup valve is a pressure limiting valve comprising a valve body that is biased against a valve seat.
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7. The control arrangement in accordance with any one of claims 4 to 6, wherein the drain backup valve is arranged in a sleeve inserted into the regulator, at the outer periphery of which a load reporting passage extends which is formed in portions thereof by a longitudinal groove.
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8. The control arrangement in accordance with any one of claims 4 to 6, wherein the drain backup valve is arranged in a portion of the drain branch line extending in parallel with a load reporting passage, with the portion of the drain branch line and/or the load reporting passage extending at a parallel spacing from the regulator axis.
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9. The control arrangement in accordance with any one of the preceding claims, wherein the directional control valve has two work ports A, B, and to each work port one drain backup valve is associated.
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